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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/215,194	12/18/1998	HIDEYUKI IKEGAMI	862.2632	7690

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FITZPATRICK CELLA HARPER & SCINTO
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NEW YORK, NY 10112

EXAMINER

NGUYEN, TANH Q

ART UNIT	PAPER NUMBER
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2182

DATE MAILED: 12/22/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/215,194

Applicant(s)

IKEGAMI ET AL.

Examiner

Tanh Q. Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 07 October 2003 and 06 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 39-54 is/are pending in the application.
- 4a) Of the above claim(s) 51 and 54 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 39-50, 52 and 53 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 December 1998 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 10/07/03 has been entered.

Election/Restrictions

2. Newly submitted claims 51 and 54 are directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claims 51 and 54 are directed to "determining whether rewriting of control codes has suspended or failed after a power supply is turned on, and determining which one of a plurality of code memories was being rewritten if it is determined that rewriting of control codes has suspended or failed", which are independent and distinct from claims 39-50, 52-53 directed to "informing a user that the image forming apparatus is under download of data during execution of the rewrite execution codes" presented earlier.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claims 51 and 54 are withdrawn from

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consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 39-50, 52-53 are rejected under 35 U.S.C. 112, first paragraph, because the specification, while being enabling for informing the user of the fact that the image forming apparatus is under download of data into flash ROM 1004 instead of displaying copying settings during execution of the rewrite execution codes (i.e. the flash ROM being renewed), does not reasonably provide enablement for informing the user of the fact that the image forming apparatus is under download of data instead of displaying copying settings during execution of the rewrite execution codes. The specification does not enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the invention commensurate in scope with these claims.

FIG. 6 is a representation of display indicated when a flash ROM 1004 is rewritten (page 6, lines 12-13; page 22, line 25-page 23, line 7). FIG. 6 also discloses that the message is "UNDER UPDATING OF DATA (FLASH ROM 1004)", hence the control codes in flash ROM 1004 being renewed. Since applicant suggested on the amendment filed 10/07/03 that Nagata merely states that an indication that a control

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program is being renewed (to a user of the image forming apparatus) does not disclose that a user is informed that the image forming apparatus is under download of data (lines 4-5 of page 10), applicant essentially suggested that "under downloading of data" is distinct from "renewal of the control codes". In such a context, "under downloading of data" would mean under transfer of control codes from the external apparatus to the receiving means. It is not understood that applicant's invention would allow for the display means to inform the user that the image forming apparatus is under download of data (i.e. under transfer of control codes from the external apparatus to the receiving means) during execution of the rewrite execution codes.

5. Claims 39-50, 52-53 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter, which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. It is not understood that applicant's invention would allow for the display means to inform the user that the image forming apparatus is under download of data during execution of the rewrite execution codes, if "under download of data" is to be interpreted as being distinct from "renewal of control codes".

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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7. Claims 39-50, 52-53 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 39-50, 52-53 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in Paper No. 27 filed 10/07/03. In that paper, applicant has stated "this portion of Nagata is not understood to explicitly disclose that a user is informed that the image forming apparatus is under download of data. rather, this portion merely states that an indication that a control program is being renewed" (lines 4-5 of page 10), and since the Nagata's indication would necessarily be directed to a user of the image forming apparatus, this statement indicates that the invention is different from what is defined in the claim(s) because it indicates that "under download of data" is to be interpreted as being distinct from "renewal of control codes".

8. Claims 39-50, 52-53 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The expression "under download of data" is ambiguous in view of applicant's argument in the amendment filed 10/07/03 (lines 4-5, page 10). The examiner interpreted "under download of data" as being equivalent to "renewal of control codes".

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and

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the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

11. Claims 39-50, 52-53 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Nagata et al. (U. S. Pat. No. 5,787,288)** in view of **Shaw (U. S. Pat. No. 6,341,373)**; and alternatively under 35 U.S.C. 103(a) as being unpatentable over **Shaw** in view of **Nagata et al.**.

12. As per claim 39, **Nagata et al.** (Nagata) teaches an image forming apparatus [10, FIG. 8] for forming an image in accordance with control codes, the image forming apparatus comprising:

a printing unit [7, FIG. 8] for printing an image (col. 4, line 67-col. 5, line 1);

a memory [3, FIG. 8] for storing control codes (col. 4, lines 56-58) to control the image forming apparatus having the printing unit;

display means [6, FIG. 8] for displaying messages associated with an image forming operations (col. 4, lines 66-67);

receiving means [2, FIG. 8] for receiving from an external apparatus [9, FIG. 8] rewrite execution codes, which are adapted to execute rewriting of the control codes in the memory, and receiving from the external apparatus new control codes (col. 2, line 63-col. 3, line 3; col. 4, lines 54-56; col. 8, lines 41-48); and

rewriting means (col. 5, lines 8-11) for rewriting control codes which have been stored in the memory, with the new control codes received by the receiving means in accordance with the rewrite execution codes received by the receiving means (col. 6, lines 17-24; col. 6, lines 40-41; col. 6, lines 51-54; col. 7, lines 44-46; col. 8, lines 57-59).

Nagata also teaches the display means for indicating operating status (col. 4, lines 66-67) and the display means being used to alert (a user of the image forming apparatus) that the apparatus control program is being renewed (col. 5, lines 25-33), hence teaches the display means displaying a message informing a user of the fact that the image forming apparatus is under download of data (renewal of control codes) during execution of the rewrite execution codes.

Nagata does not disclose the display means not displaying copying settings during execution of the rewrite execution codes. It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such limitation into Nagata's invention to clearly indicate to the user that image forming operation cannot be performed during renewal of control codes since such incorporation is well

within the skills of an artisan in the art, and especially since access to the control codes is inhibited while the control codes are being renewed – as it has been demonstrated in the previous office action (mailed 08/07/03), and since there is no need for displaying any image forming information when access to the control codes is inhibited while the control codes are being renewed – as such display would only serve to slow down the renewal of the control codes or confuse the user.

Further, since it was well known in the art at the time the invention was made to display only the status of the downloading operation on a display means of a given apparatus and not display status of other operations (i.e. not related to renewal operation) to prevent interruption of a downloading operation, it would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate such limitation into Nagata's apparatus to ensure uninterrupted downloading operation by not displaying copying settings during execution of the rewrite execution codes.

Nagata, therefore, teaches the claimed invention except for teaching transfer control codes which are adapted to control transfer of rewrite execution codes from the external apparatus, with the receiving means receiving the rewrite execution codes from the external apparatus in accordance with the transfer control codes.

Shaw teaches a client device [10, FIG. 1] comprising:
a memory [16, FIG. 1] for storing control codes [26, FIG. 1];
a receiving means [40, FIG. 1] for receiving from an external apparatus [60, FIG. 1] the rewrite execution codes which are adapted to execute rewriting of the control

codes in the memory (col. 4, line 9-col. 5, line 15), in accordance with transfer control codes [24, FIG. 1; col. 4, lines 21-51) which are adapted to control transfer of rewrite execution codes from the external apparatus (col. 4, lines 12-20) and the receiving means also receiving new control codes from the external apparatus (col. 4, line 45-col.5, line 15);

a rewriting means for rewriting the control codes which has been stored in the memory with the new control codes received by the receiving means in accordance with the rewrite execution codes received by the receiving means (col. 4, line 46-col. 5, line 15).

Shaw's teachings allow for a more secure download, recovery and upgrade of control codes in the memory (Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Shaw's transfer control codes adapted to control transfer of rewrite execution codes into Nagata's image forming apparatus because both Shaw's and Nagata's teachings are directed to renewing control codes in a memory with control codes received from an external apparatus using rewrite execution codes also received from the external apparatus, and because Shaw's aforementioned teachings would allow for a more secure download, recovery and upgrade of the control codes in the memory.

13. As per claim 39, the following alternate rejection also applies. Shaw does not specifically teach an image forming apparatus having a display means for displaying messages associated with an image forming operation, with the display means

displaying a message informing the user of the fact that the image forming apparatus is under download of data instead of displaying copying settings during execution of the rewrite execution codes, nor a printing unit for printing an image.

Shaw teaches a client device, hence encompasses an image forming apparatus having a display means for displaying messages associated with an image forming apparatus and a printing unit for printing an image. Shaw further teaches a boot code [32, FIG. 1] that is responsible for the selection and execution of either the transfer control codes or control codes in the memory (col. 2, lines 59-61). It is noted that Shaw's teachings would be well suited for a client device requiring renewal of control codes from a server, whether the client device is an image forming apparatus (with or without a printing unit for printing an image), a computer or any device that can communicate with the server using its own processor.

Shaw, therefore, teaches the claimed invention except for the display means displaying a message informing the user of the fact that the image forming apparatus is under download of data instead of displaying copying settings during execution of the rewrite execution codes.

Nagata teaches the display means displaying a message informing the user of the fact that the image forming apparatus is under download of data instead of displaying copying settings during execution of rewrite execution codes (see item 12 above).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Nagata's display means into Shaw's client device because both Shaw's and Nagata's teachings are directed to renewing control codes in

a memory with control codes received from an external apparatus using rewrite execution codes also received from the external apparatus, and because Nagata's aforementioned teachings would provide Shaw's user with the image formation apparatus downloading status so that undesirable actions can be avoided (i.e. preventing the user from trying to power off the image formation apparatus while under downloading).

14. As per claims 40-44, Nagata teaches the rewrite execution codes being transferred to a non-volatile memory medium [3, FIG. 8] as the memory and stored therein (col. 9, lines 14-16); an image forming control means for controlling an image forming process, and a switching means for exclusively changing over between the image forming process and the rewriting of the control codes (col. 5, lines 5-11; col. 6, lines 17-24); and the switching means exclusively changing over in accordance with a predetermined command [NSS signal] transmitted from the external apparatus (col. 6, lines 51-54).

Shaw teaches the rewrite execution codes being transferred to a non-volatile memory medium [16, FIG. 1] as the memory and stored therein (col. 5, lines 13-15); the rewrite execution codes including address information of the memory for executing rewriting the control codes in accordance with the address information (col. 4, line 41- col. 5, line 15; col. 5, lines 32-35); a switching means [20, FIG. 1] for exclusively changing over between an operational process and the rewriting of the control codes (col. 2, lines 59-61; col. 3, lines 23-30); the switching means exclusively changing over in accordance with a predetermined switch [20, FIG. 1; col. 3, lines 23-30]; and the

switching means exclusively changing over in accordance with a predetermined command transmitted from the external apparatus (col. 3, line 42-col. 4, line 7).

15. As per claims 45-50, Shaw further teaches a processor [12, FIG. 1] within client device [10, FIG. 1] for controlling the image forming apparatus in accordance with the control codes stored in the code memory (col. 4, lines 1-4), wherein the client device (hence the processor of the client device) controls the transfer of the rewrite execution codes from the external apparatus in accordance with the transfer control codes stored in the memory (col. 4, lines 8-44), the transfer of control codes from the external apparatus (col. 4, lines 45-col. 5, line15), and the rewriting of the control codes (col. 4, lines 45-col. 5, line15). Shaw also teaches the code memory being a rewritable memory [16, FIG. 1; col. 2, lines 43-51]; the memory being a ROM [14, FIG. 1; col. 2, lines 43-51]; and the control codes and the rewrite execution codes being programs executed by the client device (hence executed by the processor of the client device).

Nagata teaches a processor [1, FIG. 8] and the image forming apparatus having a printing unit having a similar construction to a copying machine (col. 5, lines 33-39), hence the image forming apparatus being a copying machine or a printer.

16. As per claims 52-53, Nagata in combination with Shaw teaches an image forming apparatus and rewriting of control codes in such an apparatus above, therefore teaches the rewrite control method for such an apparatus.

17. Claims 39-50, 52-53 are also rejected under 35 U.S.C. 103(a) as being unpatentable over **Nagata et al.** in view of **Nakamura et al. (U.S. Pat. No. 6,134,711)**

and/or **Senma (JP 08212079 A)** and further in view of **Shaw**; and alternatively under 35 U.S.C. 103(a) as being unpatentable over **Shaw** in view of **Nagata et al.** and further in view of **Nakamura et al.** and/or **Senma**.

Nakamura et al. (Nakamura) teaches display only the status of the downloading operation on a display means of a given apparatus and not display status of other operations during downloading [B9, FIG. 9; FIG. 10D].

Senma teaches displaying only information related to the downloading operation on an image forming device when the image forming device is under download operation to prevent the interruption of the downloading operation (English Abstract).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to incorporate Nakamura's and/or Senma's teachings into Nagata's apparatus to ensure uninterrupted downloading operation by not displaying copying settings during execution of the rewrite execution codes.

18. Claims 39-50, 52-53 are also rejected under 35 U.S.C. 103(a) with the teaching of **Knodt et al. (U.S. Pat. No. 5,987,535)** and **Whitley et al. (U.S. Pat. No. 5,590,373)** in combination with the above rejections over **Nagata, Shaw, Nakamura** and **Senma**. The text of those sections of Title 35, U.S. Code not included in this action can be found in the preceding prior Office Action.

Response to Arguments

19. Applicant's arguments with respect to claims 30-50, 52-53 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thanh Quang Nguyen whose telephone number is (703) 305-0138, and whose e-mail address is tanh.nguyen36@uspto.gov. The examiner can normally be reached on Monday-Friday from 8:30 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Gaffin, can be reached on (703) 308-3301. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306 for After Final, Official, and Customer Services, or (703) 746-5672 for Draft to the Examiner (please label "PROPOSED" or "DRAFT").

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December 12, 2003